

POPULATION TODAY

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PRB

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FROM THE EDITOR'S DESK

Remember your first geography lesson? Remember how some cities appeared not just as dots, but were instead indicated by stars?

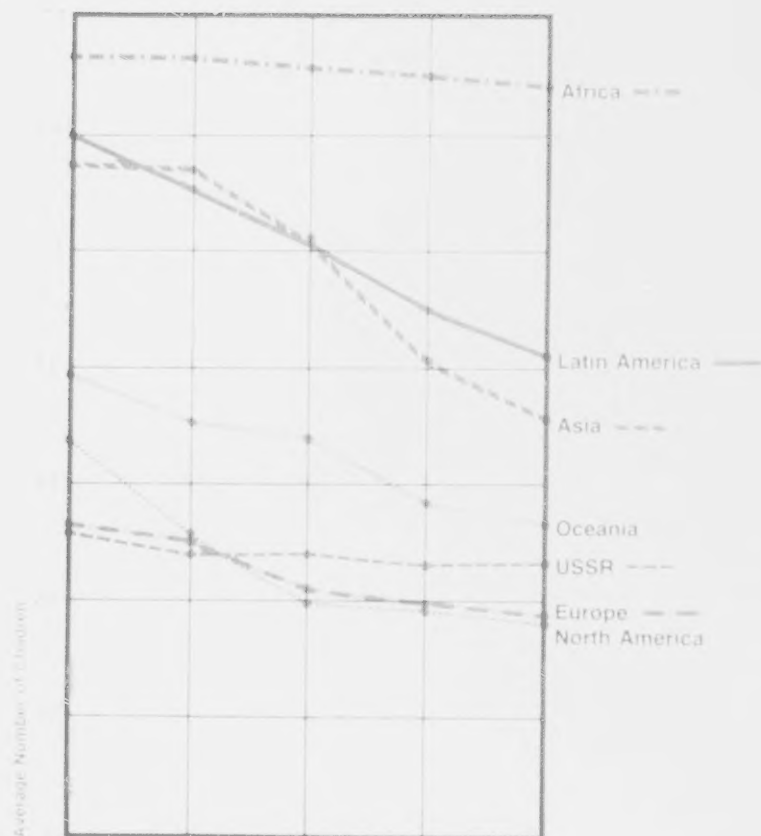
From Abidjan to Yaounde, having a capital is a glamorous, nearly mandatory part of countryhood, in fact some countries (Bolivia, the Netherlands, the Philippines, South Africa) have more than one, just to be on the safe side.

Now PRB's latest *World Population Data Sheet* (see story next page) includes a comprehensive list of capitals. Perusing them is

educational—though some capitals are toughies (Fagatogo? Antananarivo?), a number of them unimaginatively take their names from their country (e.g., Algiers, Brasilia, Djibouti, San Salvador, Guatemala, Sao Tome, etc.). And for *Trivial Pursuit* buffs for whom U.S. capitals are duck soup (Louisville, Minneapolis, Wilmington)—but you know them already, thanks to the *Data Sheet*, you can now take on the world.

—Art Haupt

SPEAKING GRAPHICALLY



The above graph sums up the recent fertility of the world's regions, charting their total fertility rates (TFR), i.e., total average lifetime children per woman. As is readily apparent, Asia's TFR dropped most sharply, in part due to China's family-planning program. But all regions have experienced some decline.

Source: UN 1984 assessments and projections.

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Population Momentum is the Key

Earlier this year, estimated global population passed the 4.9 billion mark. This figure is nearly twice the 2.5 billion population of the world in 1950, when wide dissemination of health measures was touching off the postwar "population explosion" in the less developed countries (LDCs). And the heat goes on.

The extent of this sizable 1986 population, and where its growth is taking us, are examined in different ways by two just-released PRB publications.

- "World Population in Transition," the April 1986 *Population Bulletin*, offers an in-depth status report on this growth, its trends, and the debate over its effects, written by PRB's President Thomas W. Merrick, with PRB staff.

- The 1986 *World Population Data Sheet* is PRB's 24th annual compendium of country-by-country statistics. Nearly 3,000 figures are given on everything from projected populations to infant mortality to per capita GNP's for 171 countries. This is an enhanced and expanded edition of PRB's popular data sheet, prepared by Mary M. Kent and Carl Haub.

Where We Are

Global population has been growing at 1.7 percent annually in recent years, down from its peak of 2 percent a year in the late 1960s. For 1986, this works out to some 83 million people—or 158 per minute.

Close to 92 percent of this growth is concentrated in the less developed countries of Africa, Asia (minus Japan) and Latin America. As the Data Sheet shows, virtually all more developed countries (MDCs) are below replacement level fertility—i.e., below the 2.1 child-per-woman average necessary for couples to "replace" themselves in the population. (Some are far below, like West Germany, Denmark, and Hungary, countries that are already experiencing natural decrease: a fate that awaits other more developed countries if fertility does not soon rise to replacement level.)

In less developed regions as well, however, fertility rates and growth

rates are declining, except in sub-Saharan Africa and parts of Latin America and South Asia. The UN projects that by 2025, most LDC countries will be at replacement level or close to it.

The sharper the drop
from high to low fertility,
the greater role
momentum plays.

Mighty Mo

Despite declining growth rates for most of these countries, actual numbers added annually will continue to climb for some decades, because of one of the least understood—or at any rate, least publicized—population dynamics: *demographic momentum*

(see box on page 8).

Momentum is the phenomenon that ensures increasing births for a generation or two even after a population's average fertility drops to replacement level. It may seem paradoxical that a country can grow when couples are just (or not even) replacing themselves. (This is the case, for example, in the U.S., to which 1.7 million people are added annually through natural increase even though fertility has hovered at 1.8 births per woman—well below replacement—since the mid-1970s.) But momentum occurs because the numbers of new mothers grow as an echo effect of past high fertility, and a population stops growing only after this echo effect has worked its way through the population's age structure. The higher fertility is to begin with, and the sharper the drop to low fertility, the greater role momentum plays.

In most developing countries, the
Continued on page 8

1986 World Population Data Sheet

Highlights

World population as of mid-1986: 4.924 billion
More developed country (MDC) population: 24 percent of world total
Less developed country (LDC) population: 76 percent of world total
China's population: 21.2 percent of world total
World birth rate: 27 births per 1,000 population
World death rate: 11 deaths per 1,000 population
World rate of natural increase: 1.7 percent (rounded)
World total fertility rate: 3.6 lifetime children per woman
MDC total fertility rate: 1.9 lifetime children per woman

LDC total fertility rate: 4.2 lifetime children per woman
World infant mortality rate: 82 infant deaths per 1,000 live births
World life expectancy at birth: 62 years
Highest natural increase: Kenya, 4.2 percent
Highest natural decrease: West Germany, Hungary, both 0.2 percent
Highest percentage of population under 15: Kenya, 53 percent
Highest percentage of population 65 and over: Denmark, Norway, West Germany, all 15 percent
Highest percent urban: Singapore, 100 percent
Lowest percent urban: Bhutan, Rwanda, 5 percent

Grass Roots Family Planning in Africa

Jean van der Tak, PRB's Senior Editor and Editor of the *Population Bulletin*, recently returned from an informal survey of family planning in Zimbabwe and Botswana. Her report:

Zimbabwe's 1984 Reproductive Health Survey found a national average of 27 percent of married women using modern contraceptives, the highest rate recorded so far in continental sub-Saharan Africa (see *PT*, January 1986). For that, much of the credit goes to community-based distributors like Grace Tavinenyika, one of some 400 women in the "backbone" program of the Zimbabwe National Family Planning Council.

With her supervisor Joyce Hore, we followed Grace on her rounds on an overcast summer's morning in February, threading through the ripening corn to clusters of round, concrete-and-brick, thatched-roof huts, 20 miles east of Harare, Zimbabwe's capital. Grace, who trained six weeks for her job and is paid 160 Zimbabwean dollars (about US \$100) a month, covers each point on her map every three to four weeks, usually on her bicycle (in for repairs that day). Her first "repeat client" of the morning had forgotten a pill and was pregnant; the second had announced the last time that she was stopping to get pregnant. Grace checked records with the next several smiling women and left new pill supplies. ("About 80 percent choose the pill," she said; those choosing IUDs are sent to the nearby health post for insertions.)

Dorothy (age 20), clutching son Tapwa ("nearly three") and year-old daughter Simba, was hesitant. Husband Toga (26) wasn't sure about the pill. Luckily, Toga was nearby. ("We like to get husbands in at the beginning," Joyce explained, "but around here most of them work in Harare during the week.") Seated facing Toga with Dorothy beside her, Grace went through her display card of pills, the Lippes loop IUD, condom, and diaphragm, extolling the health and economic benefits of family planning (in Shona, with Joyce interpreting to the visitors).

Toga was convinced after about 15



Family planning recruits Dorothy and Toga with community-based distributor Grace Tavinenyika and supervisor Joyce Hore in Zimbabwe (left to right).

minutes and Grace then questioned Dorothy on a list of conditions that might "contraindicate" pill use. Did she have prolonged headaches, shortness of breath, sore knees, missed periods when not pregnant, etc.? Dorothy said she did have sore knees sometimes, so Grace, after checking her blood pressure, gave her a month's supply of progestin-only "minipills" (40 cents, further pills—supplied by USAID—would be free, since Toga's monthly earnings were under 120 Zimbabwean dollars) and a two-week supply of condoms for Toga, to tide them over. If Dorothy passed a later full physical at the health post, Grace would be back every three to four weeks to check her progress and keep up her supply of combined estrogen-progestin pills.



Mother and child in Francistown, Botswana.

"We advise women to plan for three years between births," Grace said. How many children did Dorothy and Toga want? The answers—six from Dorothy, two from Toga—foretold some compromising to be done in that family. "Most women say, 'I haven't thought about it, or it's up to my husband,'" said Grace, "but if I press them they say four" (two fewer than the 1984 survey's "expected" average).

Back in Harare at Joyce and Grace's Mashonaland provincial headquarters, manager Monica Sibindi showed off the detailed records compiled by her 20 supervisors on the 10 to 12 distributors each was responsible for monthly numbers of repeat visits (usually upwards of 200), new recruits (at least 10), pill cycles and condoms received and given out.

The next day at the University of Zimbabwe on Harare's northern edge, University of Pennsylvania-trained demographer Dr. Marvellous Mhloyi was skeptical of the 1984 national survey's vaunted 27-percent modern contraceptive prevalence rate. From her own early 1985 "qualitative" survey of 120 women and men in two, "maybe untypical" rural areas, she figured it at more like 10 percent, though probably 100 percent of couples have used traditional methods—mainly withdrawal—at some time.

She added hastily, "Don't get me wrong. I'm positive our total fertility Continued on page 10."

Record Number of Illegals Entering U.S.

Mexican illegal aliens are crossing the border into the U.S. in record numbers, according to the U.S. Immigration and Naturalization Service (INS). The migration flow has doubled at some southern entry points in recent months.

In January 1986 the Service apprehended 131,500 illegals on the Mexican border, a 53-percent jump over the same month in 1985. With 1.2 million border apprehensions, 1985 was a record year. The INS projects that 1986 will see 1.8 million apprehensions.

Increases in the Border Patrol along the southern border—to 2,629 agents—is given as one reason for the increase. But the principal cause is believed to be the difficult Mexican economic situation, in recent months exacerbated by the Mexico City earthquake and by the plunge in world oil prices. The latter has drastically reduced the income from oil fields and threatens Mexico's ability to pay its international debt.

The U.S.-Mexican border is a world anomaly—a unique instance of a prosperous, more developed country bordering directly on a populous less developed one. Needless to say, apprehensions account for only part of the presumed migration northward—an informal, unprovable rule of thumb posits that for every alien apprehended, one (or two, or three) passes through undetected. The U.S. Census Bureau recently changed its population estimation process to include the hypothetical component of 200,000 illegal migrants entering the U.S. each year (see "Take A Number," page 10).

Meanwhile, immigration reform remains an unsettled issue in Congress. The bill sponsored by Sen. Alan Simpson (R-Wyo.) was passed by the Senate last September, but the latest House version, co-sponsored by Reps. Peter Rodino (D-N.J.) and Romano L. Mazzoli (D-Ky.), is now pending before the full House Judiciary Committee, with no date yet set for action. —A.H.

SURVEY REPORT

Urban Somalia

In Somalia, where population growth is considered satisfactory by the government, and family planning services (as well as good data) are limited, new surveys on family planning attitudes and practices provide valuable insights.

The Somali Family Planning Survey was conducted between June and November 1983 by the Family Health Unit of the Ministry of Health in conjunction with the Contraceptive Prevalence Survey project, at Westinghouse Health Systems, with funding from USAID. Five Somali cities, Mogadishu, Hargeisa, Kismayo, Baydhaba, and Burco, were selected for the survey since they had been the focus of a previously launched family health/family planning project. A total of 3,016 ever-married women were interviewed.

The survey reveals an ardent desire for children on the part of the women, with correspondingly limited knowledge on contraceptive methods. The data indicate that by the time they reach their early 40s, Somali women have given birth to between 6 and 7 1/2 children on average.

The data on children ever born to these women show that between 25 and 30 percent of the ever-married women give birth to a total of 8 or more children. Three-quarters of the women in Kismayo, Baydhaba, and Mogadishu give birth to at least 5 children. At the other end of the spectrum, a substantial proportion of women in Burco (13 percent), Baydhaba (10 percent) and Hargeisa (8 percent) remain childless at the end of their reproductive lives.

About 95 percent of the currently married respondents said they want to have more children. These high levels of desire for future childbearing among married urban women in Somalia suggests that women there do not think in terms of limiting the number of

children they bear. Even among women 40-49 years old, only between 4 and 20 percent of married women say they want no more children, as do less than 25 percent of women with 8 or more surviving children.

Contraceptive knowledge is rather low in Somalia. When questioned, less than one in six women could name a method without prompting. In only one city, Baydhaba, do as many women know a method as do not. The percent of total knowledge (prompted and unprompted, modern and traditional methods) is in the low 40s in Mogadishu, Hargeisa, and Burco, but is only 20 percent in Kismayo. In general, just under half of the women who knew about at least one method approved of the use of family planning.

The levels of both ever-use and current-use of contraceptive methods are extremely low in urban Somalia. Only 3.6 percent of the women surveyed in Hargeisa have ever used a method, and 2.6 percent of the women there were using contraceptives at the time of the survey. In the other four cities, both ever-use and current-use are less than 1 percent. The pill is the only method with which women have some experience in all the cities.

The survey included a series of questions on the prevalent practice in Somalia of female circumcision. 100 percent of the women surveyed had undergone this operation. Most of them had undergone a pharaonic circumcision, the most severe of the three types, in which the labia minora and the whole of the clitoris are removed, in addition to this excision, infibulation is performed. The overwhelming majority of the women (82 percent in Hargeisa and over 90 percent in the other cities) approve of the procedure. Virtually all of the women believe in having their daughters circumcised.

—L.A.

DEMOGRAPHER'S PAGE

As China's One-Two Fertility Debate Turns

by H. Yuan Tien

After a lapse of nearly five years, the China Demographic Society convened its Fourth National Conference in November 1985. The meeting's twin themes were "Urban/Rural Economic Reform and Population Problems" and "Exploring Ways of Achieving Socialist Planned Reproduction with Chinese Characteristics."

In his keynote address, Mr. Wang Wei, Director of the State Population Planning Commission, concentrated mainly on the second principal concern, planned reproduction. Interestingly, nowhere in the address was there any reference to China's minimal fertility policy of "one child per couple," the centerpiece of the country's population programs and the focus of worldwide fascination since 1979. The salience of this omission looms particularly large in the context of what Mr. Wang did say about population planning.

The task of planned reproduction touches tens of thousands of families and hundreds of millions of people," he declared. "It affects the course of our country's socialist four modernizations. Therefore, in planned reproduction activities, the bottom line must be social benefits. The Central Committee of the Party has pointed out that planned reproduction activities must effectively control population growth and also bring closer together the Party and the people as well as enhance stability and unity."

Mr. Wang added: "Plans for population control must serve to adjust the age structure of the population well. Not only should they not allow the young age structure of the population to continue too long, but they also

should not permit an old age structure to emerge too quickly and too hastily. Not only must they take into account the needs at the end of the present century, but they also must meet the requirements of the 2050s. Only then can they yield positive benefits."

More than One Child

Despite great efforts, China's promotion of minimal reproduction has not resulted in exclusively one-child couples. Findings from a large-scale sample survey in Shanghai, Hebei, and Shanxi in April 1985, for instance, indirectly document a second child present in a significant number of households (see Table 1).

"A plan that requires all or the majority of the families to have only one child, is difficult for the great majority of the people to accept."

Participants at the Society meeting took three different approaches. One view deemed the current one-child goal worth striving for, even if not fully attained. Others favored "plugging big holes" (i.e., preventing second births outside population plans and all births of higher parities), but endorsed the existing practice of "opening small holes."

(i.e., permitting exceptions according to local circumstances). In these two views acceptance of the second child either was ambiguous or amounted to passive accommodation with reality.

A third view favoring second children deserves special attention. It may well turn out to be the direction of possible modifications in China's population planning programs.

As reproduced in Table 2, the projections based on two children per couple bear a 1984 date, but had been prepared by Mr. Liang Zhongtang for publication in an internally circulated journal in 1981. These figures apparently also served as the basis for discussion at the 1985 Conference. No attempt is made here to assess their accuracy; their poignancy lies much more in the thinking and justifications behind them.

"Xi" and "Shao"

Of paramount interest is the fact that the making of projections of this kind began with, if not before, the start of the one-child-per-couple policy. At the Second National Conference on Population in December 1979, Mr. Liang articulated various reservations about the one-child limit. It would lead, he stated, to a too rapid process of population aging and too many people without children at their side in old age. It would create, in 30 years, an abnormal population pyramid, rendering it necessary for one young couple to have to support four parents and one child (the 4-2-1 population structure).

Table 1: Distribution of All Births by Parity in Shanghai, Hebei, and Shanxi, 1980-April 1985

City	First	Second	Third or more
Shanghai	80.6	18.4	1.0
Hebei	40.3	59.6	14.2
Shanxi	44.1	55.9	28.3

Source: State Statistical Bureau, People's Republic of China.

Table 2: Population projections based on two children per couple, People's Republic of China, 1984-2040

Period	Marriages or 1st Births	2nd Births	Total Births	Total Deaths	Net Gains	Permit- ted pop. (in millions)
(All figures in millions)						
1984-1990	19.2	1.0	20.2	11.1	9.1	1070
1991-2000	16.10	0.87	16.97	10.3	6.67	1140
2001-2010	13.0	0.7	13.7	9.4	4.3	1170
2011-2020	10.0	0.54	10.54	8.0	2.54	1190
2021-2030	7.0	0.46	7.46	6.0	1.46	1210
2031-2040	5.0	0.37	5.37	5.0	0.37	1240

Source: Liang, Zhiming, "China's Real Population and Family Planning: Data on the Births of the First and Second Children," *Chinese Economic Journal*, March 1984.

Notes: (a) the column

(b) presents all second births of the period 1984-2040, two years and more after the first birth, and (c) presents all second births of the period 1984-2040.

(d) presents all second births of the period 1984-2040, two years and more after the first birth, and (e) presents all second births of the period 1984-2040.

More important, he went on to say, "the current model calls for an rapid succession within the period of a few decades, a reduction to one child from two children, a return from one child to two children, from two to three or more children, and finally, restriction on high-parity births. These shifts make it impossible for the people to know what to follow in reproductive matters."

Lastly, given the level of our country's economic development, a plan that requires all or the majority of the families to have only one child also is difficult for the great majority of the people to accept.

Accordingly, Mr. Liang proposed in 1979 that the country adopt a more workable plan based on the two principal ingredients—*xi* and *shao* (longer spacing and few children)—of the Zhou Enlai fertility model of the early 1970s. Specifically, for the next several decades each couple would be allowed two children, provided that the interval between the two births would be strictly kept at 8 to 10 years. His plan also called for 30 percent of the couples to have only one child. But this provision was not to take effect until 1990, and would probably be more eas-

ily realized by education and propaganda rather than by strong administrative measures.

After a lapse of 10 years, with the actual survival of the first child, the family routine would crystallize around one child, and a proportion of the couples would voluntarily refrain from having a second child. Preferential treatment for one child would have more real meaning for those involved than in any universal one-child system.

Liang calculated in 1979 that implementation of his plan would yield a stationary population of 1.11 billion between 2010 and 2020—a figure that is now obsolete, considering that China's mid-1986 population is estimated to be 1.05 billion. But his arguments represented a point of view notably different from those behind the then-expanding population-planning efforts. The national goal established at that time was that, by 1985 or so, 95 percent of annual births in urban areas, and 90 percent of those in rural areas, should be first births. Evidence of the large notice that they received behind the scene soon appeared in various media including the *People's Daily*,¹ giving point-by-point rejoinders.

8 to 10 Years Between Children?

With full elaboration, these arguments were internally circulated in 1983. With the express aim of finding an alternative to the one-child policy, Mr. Liang proposed that "for the next several decades, on the basis of promoting the 'one child per couple' practice during the initial several years, each woman be permitted to have two children, provided that the interval between births be extended to 8-10 years. That is, if a woman's age at first marriage is 20, the birth of the second child be delayed to age 30."²

Included in his proposal were population projections for 1984-2040 (see Table 2) based on the assumptions of (a) age at first marriage for woman at 20, (b) 90 percent of births surviving to marriageable and reproductive age, (c) 30 percent of the couples in each birth cohort bearing only one child, (d) comparatively favorable age-specific mortality rates of various developed countries, and (e) absence of nonmarriage or infecundity among women. The advantages of his plan, Mr. Liang stressed, are:

1. Annual population growth can immediately be limited to below 1 percent. Our country's population specialists are in a hurry to reduce population size. However, during the last few years, in spite of very large expenditures of effort, the TFR still is above 2.6. On the other hand, if this proposed strategy is adopted, the births occurring during the first 10 years would actually be all single children. The birth rate would at once decrease.

2. Allowing people to have two children eliminates the masses' anxieties and makes planned reproduction truly voluntary acts among the masses.

3. Law must be quickly enacted so that the whole society has guidelines to follow in the area of reproduction. However, we still do not have concrete and systematic legislation in this area. Continued on page 8

Population Momentum

Continued from page 3

proportion of young people is very high, 40 to 50 percent. Even if fertility per woman were to drop with unprecedented suddenness to the low levels of today's MDCs, those countries would still continue to grow for many decades.

Where We're Projected

If the world birth rate had remained at its 1970 level of 33 births per 1,000 population indefinitely, around 2100 world population would be passing the 150 billion mark. In reality, world birth rates have come down since then (to 27 per 1,000 population), and UN

projections have consistently been based on the assumption that fertility rates will decline (or rise, in the case of low-fertility MDCs) to replacement level.

But because of population momentum, even given such assumptions, world population will continue growing for a long time after fertility has fallen. In fact, while rates may drop, the absolute increase will grow to an annual peak of 89 million between 1996 and 2000, according to the UN's medium variant projections. Its equivalent projection for earth's ultimate stabilized population is 10.2 billion, late in the 21st century. So quantitatively, the mid-1980s could mark a half-way point for the world on its journey to ultimate population size.

Demographer's Page

Continued from page 7

The main cause of this lies in the selection of a population strategy that violates the principle that a law should not punish everyone. A "two children per couple" strategy would eliminate the antagonism of the great majority of the people.

"4. For the generation born after liberation, this plan serves, in most cases, to prevent the absence of offspring to care for them in old age. This is a substantively important major issue in planned reproduction work at present, but one that unfortunately has been overlooked for many years. The proposed population strategy aptly offers a solution to this problem."

Muddled Bathwater

Clearly, the vigorous implementation of the one-child policy during the recent past has not stifled dissent. The feedbacks from those affected may very well have fostered constructive debates in China. Behind the call for quick steps "to regain the initiative in planned reproduction work" lies, among other considerations, the fact that implementation of the one-child limit has become administratively ponderous.

For instance, From the start, exceptions to the one-child norm have been included in provincial and local family planning regulations. These exceptions have since become even more elaborated and numerous, regulations issued recently by a large municipality, for example, list varied exceptional cases that permit a second child, such as certain cases of couples with an adopted child, marriages of single children, marriage between minorities, returned overseas Chinese, or those who suffer from a certain level of disability.

To describe one regulation at length: More than one child is allowed for "rural" couples (including those between women employed in agriculture and men in the urban sector).

a. when one side is a single child;
b. of uxorilocal [proximate to the wife's family] residence (when there are several sisters, only one receives permission);

c. when one side suffers from detor-

Why Momentum Matters

When the average fertility rate of a population reaches the replacement threshold—about 2.1 births per woman, one would expect births—and deaths to be in balance. Eventually they will be, but not immediately. The reason for this is *demographic momentum*.

A population's age structure reflects its past pattern of demographic events—mortality, migration, and especially, fertility. A population that has had very high fertility in the years before reaching replacement level will have a much "younger" age structure than a population with lower fertility before crossing the replacement threshold. The proportion of young people in a population approaching replacement level fertility is important because the size of the largest recently born generation as well as the size of the parent generation determine the ultimate size of the total population when births and deaths are finally in balance. Even after replacement level fertility is reached, births will continue

to outstrip deaths so long as the generation that is producing births is disproportionately larger than the older generation where most deaths occur.

China, with a 1985 population of 1.04 billion and 14 percent under age 15, is among the handful of less developed countries with fertility even close to replacement level. China's total fertility rate was 5 to 6 births per woman as late as the early 1970s but dropped precipitously to 2.1 in 1984. Even with its aggressive fertility control program, China's population is expected to grow to 1.567 billion (a 51 percent increase over 1985) before stabilizing. Yugoslavia also recently reached replacement level fertility, but down only from a total fertility rate of 2 to 3 births per woman. Some 24 percent of its 1985 population (or about 23 million) was under age 15. Its population is projected to stabilize at about 30 million (30 percent over 1985) at the end of the next century.

from Thomas W. Merrick,
World Population in Transition
PRIS, April 1986, Population
Bulletin

mities equivalent to the Second Level B Grade disabilities among veterans.

"d when one of the several brothers is infertile, but other brothers have one child each.

"e who have borne a daughter and live in hilly areas or shallow soil, poor natural conditions, and labor-intensive production.

"f in sparsely populated mountainous regions."

Information is lacking on the proportions of persons in the population who qualify for relief from the one-child limit. However, there is no doubt that the many exceptions are a response to a widespread desire and need for a second child.

The conspicuous omission by Mr Wang of any reference to the "one-child" policy underscores, albeit obliquely, that the second child has as large a presence as the first child in the minds of the people generally and of population specialists in particular. By the same token, it leaves the door wide open through which the one-baby policy can be thrown out with the administratively muddled bathwater. In its place, the architects of China's policy can, and likely soon will, renovate "ways of achieving socialist planned reproduction with Chinese characteristics" by including the spacing of the second child at a stipulated interval.

References

1. Wang Wei, "Speech Delivered at the Fourth National Conference on the Science of Population," Shijiazhuang, Hebei, Nov. 19, 1985.
2. Liang Zhongtang, "On Our Country's Population Development Strategy During the Next Several Decades," Paper presented at the Second National Conference on the Science of Population, Beijing, December 1979.
3. Chen Muhua, Bo Yibo, Speak at Family Planning Meeting, Xinhua-English, Beijing, Feb. 2, 1980.
4. Song Jian et al., "On the Goal of Our Nation's Planned Population Growth," *Peoples Daily*, Mar. 7, 1980.
5. Liang Zhongtang, "Global New Technological Revolution and Our National Population Response," 1981.
6. Peoples Government of Xian Municipality Document No. 031, October 1985.

POSITIONS/PROFESSIONALS

Postdoctorate Research Fellow, Research or Visiting Assistant or Associate Professor for Brown University's new Alan Shawn Feinstein World Hunger Program. This four-year program will emphasize fundamental understanding of the prevalence, persistence, and prevention of hunger, and will focus particularly on long term trends in climatology, demography, economics, technology, and values. Research is carried out collaboratively with other institutions that share its concerns and among a small (8-10) resident group.

The World Hunger Program invites applications for appoint-

ments to the resident group (beginning September 1986 or earlier, with terms negotiable) in either of two categories: (1) Postdoctoral Research Fellow and (2) Research or Visiting Assistant or Associate Professor. In addition, the program welcomes inquiries for appointment as Visiting Scientists and Scholars (with some independent support). Appointments will be made beginning May 1, 1986.

Submit statement of interest, a vitae, and names of three references to: Robert W. Kates, Director, Alan Shawn Feinstein World Hunger Program, Brown University, Box 1831, Providence, RI 02912.

POPULATION UPDATE

Estimated United States Population

As of November 1, 1985	240,123,000
As of November 1, 1984	237,869,000

The above estimates include armed forces overseas and are from U.S. Bureau of the Census, *Current Population Reports, Series P-25*, Nov. 1985.

Estimated World Population

As of April 1986	4,921,000,000
Annual Growth	81,000,000

Estimated by extrapolation of the mid 1986 world population given on PRB's 1986 World Population Data Sheet.

Latest Provisional Statistics for the U.S.: November 1985

Item	12 months ending with November					
	Number		Rate			
	1985	1984	1985	1984	1983	1982
Live births	3,758,000	3,673,000	15.8	15.6	15.6	16.0
Deaths	2,087,000	2,040,000	8.8	8.6	8.6	8.6
Natural increase	1,671,000	1,633,000	7.0	7.0	7.0	7.4
Marriages	2,423,000	2,474,000	10.2	10.5	10.5	10.8
Divorces	1,185,000	1,160,000	5.0	4.9	5.1	5.1
Infant deaths	39,300	39,100	10.5	10.6	10.8	11.3
Population, base, 100 (millions)	238.1, 235.9, 233.5, 231.3					

Note: Rates are given per 1,000 population, except for infant deaths, which are given per 1,000 live births. Rates are based on revised population estimates from the 1980 Census.

Source: *Monthly Vital Statistics Report* (Vol. 34, No. 11) from the National Center for Health Statistics.

African Family Planning

Continued from page 4

rate [6 births per woman, she estimated, against the 1984 survey's 6.5 and the government's current 5.6 estimates] will start to decline in the next decade. People are so conscious of the high cost of children—feeding them and especially school uniforms and fees [10 to 15 Zimbabwean dollars per term for primary school].

Across the border in France-sized Botswana, unlike Zimbabwe not fully recovered from drought, high child costs are also on people's minds, said Dr. N.N. Mashalaba, family planning pioneer in the mid-1960s and head of the government's program from 1973 to 1983. Now in private medical practice, she had brought along for tea at Gaborone's leading hotel her successor as head of the Ministry of Health's Family Health Division and family planning leaders from the YWCA, Red Cross, Christian Women's Fellowship, and the government's Women's Affairs department. "You should have been here last month," one said. "That's the time to pay school fees [U.S. \$7 to \$12 a year for primary school] and everyone was complaining. That's the reason we're all having fewer children than our parents did—even in rural areas."

Added another: "Most women go out to work—selling cooked foods or baskets they've made besides doing fieldwork in rural areas—and nowadays we can't rely on aunts and grandmothers for child care."

Botswana's 1984 Family Health Survey had found a 19-percent modern contraceptive prevalence rate, second only to Zimbabwe in sub-Saharan Africa (see *PI*, December 1985). The six women were sure it would soon go much higher with a strong government family planning program fully integrated with maternal and child health services, covering the country's scattered 1.1 million people through some 400 clinics and more than 600 family welfare educators. But they were concerned about rising teenage pregnancy and all were planning programs to try to reach adolescents.

"Developing countries get asked to grow up too fast," said Dr. Mashalaba. "We feel under pressure from outsiders to do it quickly when they should look at how long it took developed countries to bring down their family sizes." Then she added: "Maybe it's not this generation that will change, the one we're trying to reach now, but the next generation will."

TAKE A NUMBER

Illegal Flow Officially Estimated: Beginning with the estimate of total U.S. population for Oct. 1, 1985, the Census Bureau has made some noteworthy changes in its monthly intercensal estimates. Annual net emigration is now assumed to be 160,000 per year, up from the 36,000 which had long been used. This amounts to a net addition to the "minus" side of the ledger of 124,000. The new figure is based on internal Census Bureau studies which took such factors into account as Social Security recipients living outside the U.S. On the plus side of the equation, it is now assumed that net illegal immigration amounts to 200,000 per year, a figure that never before was taken into account. This too is based on Census Bureau studies and demographic analyses. These two factors result in a net increase of 76,000 in the amount by which U.S. population grows each year. By Dec. 1, 1985, U.S. population was estimated at 240,299,000 (including armed forces overseas) an increase of about one-half million over what the estimate would have been under the older set of assumptions.

Birth Rankings: Where are more babies born in the world than anywhere else? This type of question is not an infrequent one at PRB, so herewith are the current top ten countries by the number of births.

Developing countries' numbers are estimates, of course, but under close scrutiny these rankings should hold up well.

Annual Numbers of Births

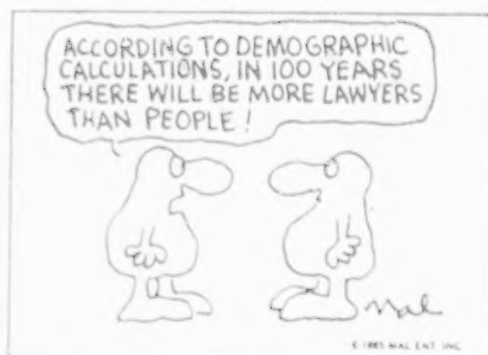
1. India	27,500,000
2. China	18,400,000
3. Indonesia	5,700,000
4. USSR	5,500,000
5. Nigeria	5,100,000
6. Bangladesh	4,600,000
7. Brazil	4,400,000
8. Pakistan	4,400,000
9. United States	3,800,000
10. Mexico	2,600,000

Update on U.S. Hispanics:

The Census Bureau has released its first estimate of the U.S. Hispanic population for the mid-1980s which is consistent with the 1980 Census count. For March 1985, there were an estimated 16.9 million Hispanics in the U.S., a 16-percent increase over the 1980 Census count of 14.6 million. At 28 percent, Puerto Ricans and Cubans had the largest percent increase, but a large number of Cubans had arrived during the Mariel Sealift, shortly after the 1980 Census was taken. According to these estimates, Hispanics now comprise 7.2 percent of the total population, up from 6.4 in 1980. While Hispanics' median age is less than that of the general population, 25 years vs. 32, Hispanics too have "aged" from their 23.2 median age in 1980.

—L.H.

ADDENDA



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CURRENT READINGS

PRB welcomes materials on population topics for possible inclusion in Current Readings. Publishers may address review copies to: Book Review Editor, POPULATION TODAY, Population Reference Bureau, 777 14th St., N.W., Washington, D.C. 20005.

THE IMMIGRATION TIME BOMB

by Richard D. Lamm and Gary Imhoff. New York: Dutton, 1985. 271 pages. \$18.95. ISBN 0-525-24337-2.

The longest part of this book details arguments that "legal and illegal immigration are out of control," posing serious problems to American society. The chapter titles outline the important areas: "How many can America absorb?," "The dispossessed," "Lawlessness," "The splintered society," "Language: the tie that binds," "Jobs, immigrants, and Americans," and "Social services, aliens, and Americans."

The authors also present a series of recommendations as to how immigration laws and procedures should be changed to bring immigration back under control. The most important are:

- Establish now a firm and comprehensive annual ceiling of 400,000-450,000 for all categories of legal immigration, including refugees.
- Establish demographic, economic, and social criteria on which to base, in the future, a fluctuating ceiling for immigration.
- Use sanctions to stop employers from employing illegal aliens.
- Improve the management, resources, and policies of the INS and the Border Patrol.

Conspicuously absent from this list is an amnesty or legalization provision. Lamm, currently the Democratic governor of Colorado, and Imhoff observe that amnesty for illegals already in the U.S. has been the highest priority for opponents of immigration reform.

The tone of this book, and of course its title, remind one of Paul Ehrlich's *The Population Bomb*. The authors view world population growth with alarm and say that "Pressures to immigrate to the United States have to be stopped domesti-

cally by American laws and American enforcement of those laws, because in the countries of the developing world the pressure to emigrate will continue to grow as their population explodes. Without action on our part, that pressure may prove to be irresistible."

Although "immigration" is in the title, the book is mostly about only one kind of immigration: illegal. It adds nothing new to the debate on immigration reform, but it does a good job of summarizing the issues involved and the arguments for one side. Lamm and Imhoff have a certain viewpoint to present, and they do it thoroughly. It is a valid viewpoint and they do give space to opposing points of view. I would not, however, expect pro-growth advocate Julian Simon to agree with much of the discussion in this book.

—Bolt Gardner

ASIA-PACIFIC REPORT: Trends, Issues, Challenges

by The EastWest Center, Honolulu, Hawaii. The EastWest Center, 1986. 104 pages. \$10.00. ISBN 0-866-98-071-X.

Honolulu's EastWest Center recently celebrated its 25th anniversary and, to mark the occasion, has produced the *Asia-Pacific Report* (the first of a series) designed to establish some baselines for the region's development and identify critical policy issues for the years ahead. This region, which encompasses the Pacific island states in the east, Japan and China in the north, and Australia and New Zealand in the south, includes 56 percent of the world's people living on 19 percent of its land area and grouped into 31 independent countries and several territories.

The report begins with broad overviews of the political and economic characteristics within the region, followed by discussions of the world economy, population trends and demographic change, sustainable use of renewable resources, and the mineral and fuels future. The conclu-

sion focuses on the challenges facing the region: 75 percent of the people live in low-income countries that face enormous obstacles to development, population growth continues to be high in much of South Asia, and millions of new jobs must be created in both urban and rural areas.

Charts, graphs, tables, and sidebars are freely dispersed throughout this compendium of information and data for the Asia-Pacific region. It does for the area what the *World Bank Development Report* does for the world. A laudable first effort at a reasonable price.

—Denise Molajo

Books Received

CANADIAN ALMANAC AND DIRECTORY 1986, 139th edition, edited by Susan Bracken. Toronto: Copp Clark Pitman (dist. by Gale Research, Detroit, Mich.), 1986. 1,237 pages. \$68.00.

CATALOGUE OF ESCAP POPULATION PUBLICATIONS: Through 1985, by the Economic and Social Commission for Asia and the Pacific, United Nations. New York: United Nations, 43 pages.

THE FAR EAST AND AUSTRALASIA 1986, 17th edition. London: Europa Publications (dist. by Gale Research, Detroit, Mich.), 1985. 989 pages. \$145.00.

HOW TO CONDUCT SURVEYS: A Step-by-Step Guide, by Arlene Fink and Jacqueline Koseoff. Beverly Hills, Calif.: Sage, 1985. 119 pages.

HUMAN MIGRATION (Scientific Geography Series Vol. 7), by W. A. V. Clark. Beverly Hills, Calif.: Sage, 1986. 96 pages.

LINKING DATA (Qualitative Research Methods Series 4), by Nigel G. Fielding and Jane L. Fielding. Beverly Hills, Calif.: Sage, 1986. 96 pages.

SOCIO-ECONOMIC DIFFERENTIALS IN CHILD MORTALITY IN DEVELOPING COUNTRIES (STESA/SEARA/97), by the Department of International Economic and Social Affairs, United Nations. New York: United Nations, 1985. 319 pages.

STATISTICAL INDICATORS ON YOUTH (STESA/STAT/SERY/1), by the Department of International Economic and Social Affairs, Statistical Office and Centre for Social Development and Humanitarian Affairs, United Nations. New York: United Nations, 1985. 202 pages. \$15.50.

STATISTICAL YEARBOOK 1985, by the United Nations Educational, Scientific and Cultural Organization. Brussels: UNESCO (dist. by UNIPUB, Ann Arbor, Mich.), 1985. 951 pages. \$78.49.

SPOTLIGHT

FINLAND

Population (1986 est.): 4.9 million
Land area: 130,160 sq. miles
Births per 1,000 pop. (1984): 13
Deaths per 1,000 pop. (1984): 9
Rate of natural increase (1984): 0.4 per cent
Total fertility rate (1984): 1.7
Infant mortality rate (1984): 6.6 infant deaths per 1,000 live births
Life expectancy at birth: 74 years
Per capita GNP (1983): US \$10,710
Capital: Helsinki

by Janine Adams

Finland lies far to the north— one-third of its area rests above the Arctic Circle. Dense forests cover 70 percent of Finland's land area, making forestry a relatively important source of national wealth.

Finland connects the Scandinavian peninsula to the great land mass of eastern Europe, and its geography has been a significant factor shaping its destiny. Finland gained independence from its easterly neighbor, the Soviet Union, in 1917 (it fought off Soviet advances during World War II). Since World War II, it has maintained close relations with both the Soviet Union and its neighbors to the west on the Scandinavian peninsula in order to pursue a policy of neutrality. Its basic foreign policy goals have been to stay out of superpower conflicts and to build mutual confidence with the USSR.

Finland's 5-million population is the second largest on the Scandinavian peninsula (behind Sweden's and ahead of Norway's). Most Finns live in the country's south, where winter climatic conditions are less harsh. But even Helsinki (population 483,000) lies at about the 60th parallel, and summer temperatures there seldom exceed 75 degrees Fahrenheit.

Finland has two official languages: Finnish, spoken by over 92 percent of the population, and Swedish, the language of Finland's first colonizers. Sweden and Finland shared a relationship which lasted nearly 700 years, beginning in the 12th century, and end-

ing in 1809 when Finland was conquered and made part of the Russian Empire. The Swedish-speaking minority in today's Finland represents remnants of a once politically and socially dominant aristocracy. The two official languages are in no way related (they differ from one another more than English and Russian). Finnish is a Finno-Ugric tongue (as are Hungarian and Estonian), while Swedish is an Indo-European language.

Finland has recorded the world's lowest infant mortality rate (IMR), at 6.6 infant deaths per 1,000 live births, in 1982. Since that time, Finland's rate has increased to 6.6, as of 1984 (a difference of about 400 infant deaths annually), and the lowest national IMR presently recorded is 6.2 (in both Japan and Iceland). These low rates make one wonder how low an IMR can really go. It is at least suggested that 6.0 is about as low as human efforts can make it—that many children may be lost as a result of genetic factors.

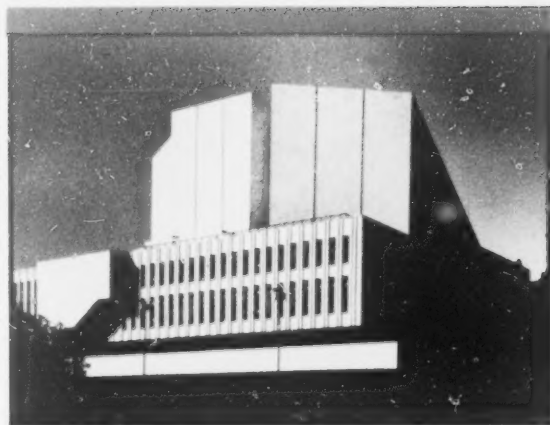
The vast majority of the Finnish population (over 90 percent) belong to the Evangelical Lutheran Church. The Eastern Orthodox Church, evidence of past Russian cultural influence, has the status of second national church, while there are small groups of Roman Catholics, Methodists, Jews, and other religious sects.

Education and literacy are very important in Finland, where as early as the 17th century, Finns had to prove their reading ability before they were allowed to marry. In the mid 1970s the educational system was reformed with the goal of equalizing educational opportunities. Tuition is free through the university level and instruction is the same for all students. Poetry has an important place in Finnish national consciousness; the country has its own "national epic," the

Kalevala, a collection in modern Finnish of traditional myths and legends.

Finland's indigenous population, the Lapps, were driven to the northern part of that country by the first settlers in Finland, the ancestors of the present-day Finnish speakers, who emigrated gradually in small groups to Finland from Estonia across the Gulf of Finland, during the first eight centuries A.D. Lapland, the region now occupied by the Lapps, includes largely Arctic sections of Norway, Sweden, and Finland, and the Kola Peninsula of the USSR. It has never been defined as an autonomous state or country, for the Lapps never developed such a political organization. As in Finland, the language of the Lapps is Finno-Ugric.

Of the roughly 50,000 persons who can be identified ethnically as Lapps, about 4,000 are found in Finland (20,000 reside in Norway, some 17,000 in Sweden, and some 9,000 in the Soviet Union). The Lapps migrate freely within the region between the various countries. The Lapps' celebrity as reindeer herders is a misconception. Reindeer herding was never a dominant characteristic of the Lapps' economy. Today, most Lapps are farmers and fishermen, or are employed in mining and logging.



Finlandia Hall, Helsinki